



News Letter



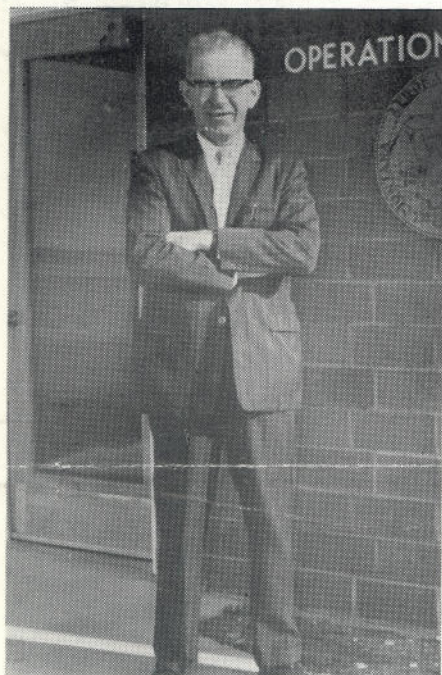
DOCUMENTS DEPARTMENT

JAN 10 1962

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November, 1961

LYNCH RESIGNS FROM COMMISSION WILL BECOME DIRECTOR, JANUARY 1



Montana Aeronautics Commission member, "Chuck" Lynch has resigned after serving ten years. He has accepted an appointment as Director, effective January 1, 1962.

Mr. Lynch will assume the administrative and operational duties of Frank Wiley, who has held the position for sixteen years. Wiley has been assigned as Advisor to the Commission on Airport De-

velopment and Aviation Matters.

Lynch has been associated with the aviation industry in Montana for nearly 30 years. He is General Operations Manager of Lynch Flying Service in Billings and has been with the company since its formation in 1940. He is a former president of the Montana Aviation Trades Association, a director of the National Aviation Trades Association, and since June 25, 1951, has represented the flight operators on the M.A.C.

He, his wife, Rose, and their four children will move to Helena when he takes over executive duties at the Commission.

IN ADDITION HE'S HANDSOME

The average airline pilot (who as an "average" probably doesn't exist) is 38 years old, has had three years of college, is married, has two children, and makes \$13,500 a year. Actually the ages of airline pilots range from 22 to 60 years, and their education varies from that of a high school graduate to a university doctorate. Annual salaries are as low as \$4,200 and as high as \$30,000, depending on experience, flying hours assigned, and the kind of airplane he flies.

Small boy to chum: "So that's it . . . I always figured the stork had too short a wingspread to carry an eight-to-ten pound load."



Wiley—Advisor to M.A.C.

COMING AVIATION EVENTS

Dec. 5-6-7—National Aviation Trades Association 22nd annual convention, Statler-Hilton Hotel, Washington, D.C.

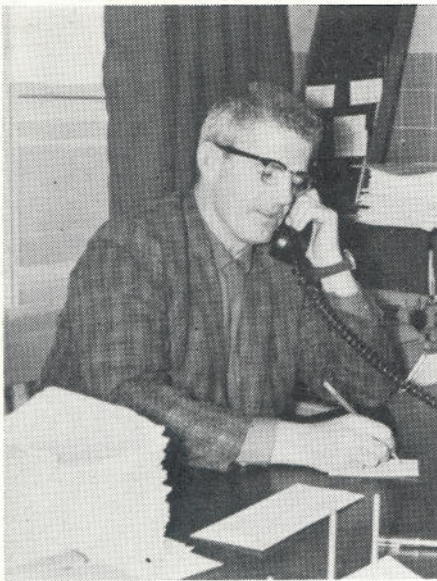
Dec. 16—Montana Pilots Association. Missoula Hangar, dinner meeting, time and place to be announced later.

May 26—Flying Farmers and Ranchers annual meeting, Langhus Ranch, Big Timber.

Official Monthly Publication
of the
**MONTANA AERONAUTICS
COMMISSION**
Box 1698
Helena, Montana

Frank W. Wiley, Director
Clarence R. Anthony, Chairman
Herb Jungemann, Secretary
E. B. Cogswell, Member
Walter Hope, Member
Carl (Bill) Bell, Member
Gordon R. Hickman, Member
Al Newby, Member

* * *
R. J. (Dick) Munroe, Editor



Al Newby, newly appointed Montana Aeronautics Commissioner.

Al Newby of Belgrade has been appointed by Governor Nutter to fill out the unexpired term of Mr. Charles Lynch's third term which ends June 23, 1963. Newby will represent the "Flight Operators" on the Commission.

Al has been a pilot for 24 years and is president and general manager of Flight Line Incorporated at Gallatin Field. He is a native of Oregon, but has resided in Montana since 1943.

Al started flying at Riverton, Wyoming, in 1937. In 1941, he began earning a living flying, instructing army cadets. In 1943, he joined the Army Air Force and served overseas in the China-Burma-India theatre. At the present time, Al is a Lt. Colonel in the Air Force Reserve.

Al's wife, Thelma and son Paul are both pilots. His daughter, Alison, 14, is looking forward to the day she can get a license.

Governor Nutter, in making the appointment said, "We are fortunate to have a man of Al Newby's long experience on the Commission."

**Warren Jones, Harlowton
Flying Farmers and Ranchers
President**

Members of the Flying Farmers and Ranchers met at Fort Benton, November 11th and 12th.

Planes carrying the members arrived and landed in 25 to 44 mile per hour winds. After the aircraft were securely tied down, refreshments were served and registration conducted at the airport. Severson's Air Activities at Great Falls sent a new Cessna Skyhawk up for demonstration rides; but because of the high gusty winds most FF and R members were contented just to look.

At the business meeting, presided over by President Sam Langhus, Warren Jones of Harlowton was elected President; Ermol Hanson, Fort Benton, Vice President; Earl Keister, Conrad, Director; Morten Mortenson, Circle, Director. Leonard Sorenson, Bozeman, was re-elected Director; and Rosella Tempero, Worden, was re-elected Secretary-Treasurer.

Members discussed general aviation problems, promotion of aviation among teenagers and the formation of a "Flying Posse" in cooperation with the Montana Stockgrowers. A resolution was passed opposing CAR 60-24 which requires two-way radio contact at airports with control towers.

Their annual spring meeting was set for Sunday, May 27, 1962 at the Langhus Ranch near Big Timber.

Dick Munroe of the M.A.C. spoke on "The Future of General Aviation" and showed a film at the banquet that evening.

November 28, 1928—First flight over the South Pole is made in monoplane "Floyd Bennett" by Comdr. Richard Byrd, Bert Balchen, Capt. Ashley, C. McKinley and Harold I. June, flying from camp in "Little America."

**MONTANA MUNICIPAL LEAGUE
WOLF POINT AIRLINE SERVICE**

Following is a letter written by R. E. Coffey, Mayor of Wolf Point, to the Civil Aeronautics Board, Washington, D. C.: "If the CAB does not grant the transfer of Frontier Airline's routes in Montana to North Central Airlines as per their pending application, then I predict that Frontier will apply to discontinue several points on the route due to the "use it or lose it" policy. However, I would like to point out to the Board that ever since Mr. Maytag has taken over the management of Frontier it has been evident that he is not interested and does not want any routes in Montana north or east of Billings, Montana. He has shown this by poor connections, apathy to suggestions, and general disregard for the established communities or interest between the cities on the routes and his scheduling reflects this. If I were to run Frontier's operation in Montana with the intent to decrease traffic to the point whereby I could apply to the CAB to discontinue the route, then I would run it just like Mr. Maytag has done. I am writing to the CAB regarding this for the sake of the record. Mr. Maytag has shown he has no interest in Montana north of Billings but I am sure the CAB has." (signed R. E. Coffey, Mayor Wolf Point, Montana)

GOING TO MEXICO?

THE AMERICAN EMBASSY IN MEXICO CITY REPORTS that Customs officials at Matamoros Tamaulysas are requiring that pilots of private aircraft entering that port present title of ownership (not the aircraft registration certificate) or a notarized document certifying that the owner of the aircraft had given them permission for the flight, and including the stated purpose of the flight. The Director General of the Mexican Customs has stated that these requirements are based on the same regulations which require similar documentation for automobiles entering Mexico and that the requirements will be enforced uniformly at all ports of entry.

Operator's Corner



Operator of the month is John Mamuzich, President of Pondera Flying Service Incorporated at Conrad, Montana.

John started flying in 1928. He took his first flight instruction in an OX-5 Swallow, a Waco 10 and an Air King. He went into the flying business in 1929, but gave up in 1935 for more remunerative employment.

In 1941 he entered the Army Air Force as an instructor. After his release from the service in 1944, he worked for Central Aircraft in Yakima, Washington for a short time. In 1945 he started his present operation in Conrad.

Pondera Flying Service has 80 and 100 octane fuel available, limited maintenance, storage, F.A.A. approved ground and flight instruction, air taxi and agricultural spraying service. In addition to the regular flight services, helicopter work is available. They have the northwest Montana dealership for Brantley.

Vice-President of the corporation is John's son, Jerry, who is flying a helicopter for Amco Electric on missile site installation.

His wife, Anna, serves as Secretary-Treasurer of the organization. They have another son, Bob, who operates a crop spraying

service in Lubbock, Texas.

John reports that the drought in his area has effected his business quite severely. He's praying for moisture and we're sure every flight operator, farmer, rancher and business man in Montana will join him.

INSTRUMENT FLIGHT IS FOR THE BIRDS OR HOW TO DUCK THE HIGH COST OF INSTRUMENTS

Basic rules for the Cat and Duck Method of flight under the hood are fairly well known and are, of course, extremely simple.

1. Place a live cat on the cockpit floor. Because a cat always remains upright, he or she can be used in lieu of a needle and ball. Merely watch to see which way the cat leans to determine if a wing is low, and if so, which one.

2. The duck is used for the instrument approach and landing. Because of the fact that any sensible duck will refuse to fly under instrument conditions, it is only necessary to hurl your duck out of the plane and follow her to the ground.

There are some limitations to the Cat and Duck method, but by rigidly adhering to the following check list, a degree of success will be achieved which will surely startle you, your passengers, and maybe even an itinerant Tower Operator.

Check list for Cat and Duck Method:

1) **Get a wide awake cat.** Most cats do not want to stand up at all at any time. It may be necessary to get a large fierce dog to carry in the cockpit to keep the cat at attention.

2) **Make sure your cat is clean.** Dirty cats will spend all their time washing. Trying to follow a washing cat usually results in a tight snap roll followed by an inverted spin (Flat.) You can see this is very unsanitary.

3) **Old cast are best.** Young cats have nine lives, but an old used-up cat with only one left has just as much to lose as you do and will be more dependable.

4) **Avoid stray cats.** Try to get one with a good pedigree. Your veterinarian can help you locate

a cat with good character, or try any good breeding farm.

5) **Beware of cowardly ducks.** If the duck discovers that you are using the cat to stay upright, she will refuse to leave without the cat. Ducks are no better on instruments than you are.

6) **Be sure the duck has good eye-sight.** Nearsighted ducks sometimes fail to realize they are on the gauges, and will go flogging off into the nearest hill. Very nearsighted ducks will not realize they have been thrown out and will descend to the ground in a sitting position. This maneuver is quite difficult to follow in an airplane.

7) **Use land loving ducks.** It is very discouraging to break out and find yourself on final for a rice paddy. Particularly if there are duck hunters around. Duck hunters suffer from temporary insanity when they are sitting in freezing weather in their blinds and will shoot at anything that flies.

8) **Choose your duck carefully.** It is easy to confuse ducks with geese because many water birds look alike. While they are very competent instrument flyers, geese seldom want to go in the same direction you do. If your duck heads off for Canada or Mexico, you may be sure you have been given the goose.

Texas "Wing Tips"
Sept.-Oct., 1961

HOW FAR AWAY IS THE HORIZON?

To the mathematician the distance in statute miles to the horizon is found by multiplying 1.32 times the square root of the altitude in feet of the observer. To those of us who have been away from math for a while the following table will suffice:

1,000 ft.—41.7	stat. miles	6,000 ft.—102.2
stat. miles		
2,000 ft.—59	stat. miles	7,000 ft.—110.5
stat. miles		
3,000 ft.—72.3	stat. miles	8,000 ft.—118.1
stat. miles		
4,000 ft.—83.5	stat. miles	9,000 ft.—125.2
stat. miles		
5,000 ft.—93.3	stat. miles	10,000 ft.—132.2
stat. miles		

It is interesting to note that the range of VHF facilities is the same as the above plus 10%.

November 23, 1909—Aero Club of America sets rules governing the licensing of aviators.

CONGRATULATIONS !!



CERTIFICATES ISSUED RECENTLY TO MONTANA FLIERS

Donald L. Fulgham, Great Falls, Private.
Edward M. Spatzierath, Toston, Student.
Duane Willard Drake, Missoula, Student.
Kiel O. Peckenpau, Gardiner, Student.
Russell D. Covey, Missoula, Student.
Darl K. Enger, Missoula, Student.
John A. Petelin Jr., Anaconda, Student.
Gordon E. Warrington, Bozeman, Student.
Dennis B. Williamson, Great Falls, Student.
Conrad L. Cox, Havre, Student.
Samuel E. Richardson, Fort Peck, Powerplant Mechanic.
Marvin W. Pugh, Helena, Powerplant Mechanic.
Al Forhart, Billings, AMEL added to Com.
Loren D. Olmstead, Great Falls, Student.
Raymond W. Tow, Havre, Student.
Robert Darrell Ellis, Missoula, Student.
Edward J. Kinsman, Superior, Student.
Roger F. Bachman, Missoula, Private.
James E. Christensen, Whitefish, Student.
Joyce B. Jacobson, Kalispell, Student.
Steven Roy Sanders, Helena, Commercial ASEL & Inst.
James Allen Friesen, Bozeman, Student.
Robert Harvey McKay, Helena, ASEL added to Com. AMEL.
Leif H. Torgerson, Ethridge, Student.
Donald P. Monforton, Bozeman, Rotoacraft added Com. ASEL & Instrument.
Leo W. Smith, Great Falls, Student.
John Ralph Burgess, Helena, Private.
Terry William Bass, Butte, Student.

Roger Rudolph DeBruycker, Floweree, Student.
Joseph W. Flynn, Jr., Helena, Private.
Alfred A. Rise, Dutton, Limited Flight Instructor.
Thomas W. Perrey, Great Falls, Student.
Darrell R. Even, Thompson Falls, Student.
Thomas J. Devine, Helena, Student.
Galen J. Rose, Billings (Belgrade) Student.
William J. Lustgraaf, Rudyard, Student.
Edward J. Peoples, Cut Bank, Student.
Larry Lewis Holtz, Floweree, Private ASEL.
Lenard O. Long, Cut Bank, Private ASEL.

BZN-LF RANGE TO BE CONVERTED TO A RADIO BEACON WITH TRANSCRIBED WEATHER

Green Federal Airway No. 2 is being revoked December 14, 1961. After that date the Bozeman L/MF range will no longer be needed for air traffic control purposes.

This facility is, however, one of those 86 such aids that are scheduled to be converted to a radio beacon with transcribed weather broadcast facilities and retained for an indefinite period.

A VOR facility also serves the Bozeman area. Approach minimums on this aid are equivalent to those on the L/MF range.

The FAA, therefore, proposes to convert the Bozeman radio range to a radio beacon with transcribed broadcast facilities after December 14, 1961.

If you have comments, write: Chief Air Traffic Division, P. O. Box 90007, Airport Station, Los Angeles 9, California.

Pocket Size

A new pocket-size plotter manufactured by Jeppesen & Co., Denver, Colorado, is now available at airport dealers. The new Jeppesen PN-2 is a smaller version of the company's popular PN-1 Plotter. Only eight inches long, it has twice as many scales as comparable plotters, plus the opaque back-up feature originated by Jeppesen, which stops "flip-flopping" to get the right side up.

SPORT PARACHUTISTS MAY PACK OWN CHUTES, F. A. A. RULES

Demonstration, exhibition and sport parachute jumpers will be permitted to pack their own main parachutes, under a new Federal Aviation Agency rule effective November 27.

The emergency parachute used in the dual pack in such operations still must be packed by an FAA-certificated parachute rigger under the amendment to Part 25 of the Civil Air Regulations.

The rule was relaxed after sponsors of skydiving and sport parachute jumping activities protested the expense involved in having a certificated rigger available at all their jumps to pack both parachutes of a dual pack. The FAA agreed that professional packing of the emergency chute will be adequate assurance of safety for the jumper.

PLANNING ON CHANGING THE STATUS OF YOUR AIRSTRIP NOTIFY FAA

Anyone proposing to establish, alter, or deactivate a landing area must give ninety days advance notice to the F.A.A. "Alter" a landing area means any realignment, modification, extension, or abandonment of any runway, taxiway, or area used by aircraft landings and takeoffs. There are a few cases in which such notice need not be given; these exceptions are:

Projects for which a request for Federal aid has already been filed under the Federal Airport Act.

Military projects for areas used exclusively by the military.

Projects for one time or short term (not exceeding 30 days) use where aircraft operations will not exceed 10 per day.

Projects involving privately owned landing areas, not open to the public, located at least five miles from any other field and twenty miles from any airport where civil or military instrument approach procedures are authorized.

This is a brief summary. Check the amendment to Part 625 of the Regulations of the Administration.

SPARE GLASSES FOR SOME AIRMEN REQUIRED

Some pilots who wear corrective glasses will find a special note on their newly acquired medical certificate reading as follows: "Holder shall wear corrective glasses and shall have available a second pair of corrective glasses while exercising the privileges of his Airman Certificate."

This requirement for two pair of glasses applies only to those whose vision is 20/100 or poorer in both eyes. Sun glasses that are correctly ground can be considered as the extra pair. If either of your eyes test better than 20/100 the requirement does not apply.

DISTANCE MEASURING EQUIPMENT INSTALLED IN MONTANA AIRCRAFT

The first installation of Distance Measuring Equipment in any private aircraft in the northern mountain states has been completed by Electronic Consultants Services, Logan Field, Billings, Montana, in a Cessna 310 based there.

A Narco UDI-2 DME went into the panel of the aircraft owned by Flint Rig Company of Billings, in line with their policy of maintaining the most efficient and safest aircraft possible.

DME is an electronic device which continuously indicates the distance in miles the aircraft is from the ground station to which the set is tuned. An airplane so equipped is able, for the first time, to have a continuous positive knowledge of its position—making it possible to fly under instrument flight conditions with less delay and increased safety.

Navigation equipment available up til now could not give continuous information, but rather yielded the positive fix information over a few points only. Commercial airlines throughout the U.S. have DME on order, but only a few have begun installation of the equipment to date.

November 6, 1915—Comdr. H. C. Mustin makes first catapult launching from a vessel under way from U.S.S. Carolina in Penscola Bay.

M. P. A. REPORTS MISSOULA HANGAR

The Missoula Hangar of Montana Pilot's Association held a meeting Tuesday morning at the Palace Hotel with 16 present.

Fred Gerlach, president, asked that anyone interested in ground school, please contact either Joe Bryan of Auto Electric or Rod Snider of Johnson Flying Service, and state what course they prefer and for information regarding where and when it would be held. If enough interest is shown in any one course, it is planned to start a ground school after January 1st.

It was decided to have a dinner meeting on Saturday evening, December 16th, the place and time to be announced later. Dr. Robert Crossley will be chairman of this event and anyone interested in making a reservation, please call him.

The speaker for the meeting was Emil Olson of FAA, Missoula Station. He gave a very informative and educational talk on Civil Air Regulations, Part 60, which concerned visual flight rules during marginal flying weather. He also stated that when the control tower does go into operation sometime after January 1st, on Missoula airport, it will serve aviation 16 hours a day. He also gave some good information on Flight Following Service available to pilots. Elsie Hartley, Secretary.

COURT DECISION

The Washington State Supreme Court recently ruled against a utility company in a case arising out of a fatal accident where the airplane flew into wires while landing at an airport. The judgment says primary responsibility to warn pilots against ground hazards at or near airports, rests with the airport owner or operator; and the power company, aware of the hazard, has a secondary duty to ask the airport owner to mark the poles and wires; and in the event he fails to do so, place the markers itself and recover expenses from the airport.

The total hours flown by general aviation is expected to increase to 16 million by 1965.

NOTICE WIBAUX AIRPORT CLOSED

Allen Eisenbart, Airport manager, has informed us that the airport at Wibaux was closed November 10th.

Gravel from the hill the airport was on, will be used for interstate 94.

November 1904—British Government, through Colonel Copper, who visits the Wright Brothers in Dayton, indicates interest in their machine.

FAA TO ESTABLISH RATINGS FOR PILOTS OF GYROPLANES

New rules to provide a rating specifically tailored for pilots of gyroplanes have been proposed by the Federal Aviation Agency.

Operating a gyroplane, a category which includes the autogiro, is quite different from flying an airplane or a helicopter. The FAA is proposing to divide the present Rotorcraft Category for pilot rating into two classes, Helicopter and Gyroplane. This rating for Gyroplane pilots would provide more precise rules to cover any increase in this type of flying.

Under the proposal, presently certificated rotorcraft pilots would get the appropriate new rating without further tests. Pilots who obtained their Rotorcraft ratings through helicopter tests would be issued a Helicopter class rating, and pilots who have passed autogiro flight tests would get a Gyroplane rating. Pilots with recent flight experience in a class of rotorcraft also would be eligible for a rating in that class.

Flight tests for the Gyroplane rating would be different from both Airplane and Helicopter tests. They would not include stalls, nor would they call for hovering, sideward or backward flight. Applicants would have to show they can make jump take-offs in gyroplanes with this capability. They also would be required to demonstrate full flare landings with little or no landing roll, as well as steep turns, maneuvers by reference to ground objects and flight at speeds as low as 27 miles per hour.

October 1912—A. Leo Stevens designs the "life-pack" parachute.

Director's Column

Turning Point For Propellers

For more than 20 years it has been the dream of the propeller industry to design a variable camber blade. Some people think propellers are old stuff but as recently as August 1960 the U. S. Navy awarded a contract to Hamilton Standard to develop such a propeller. When it is completed, it should make it possible to adjust the thrust of a blade to the most efficient level for any flight condition.

The camber (or curvature) of a propeller blade is the most important factor, next to size, of determining its thrust. Changing the camber of a wing was effected some time back by the development of retractable wing-flaps which made possible high camber and produced more lift for take-off and climb without permanent increase in the wing area.

Through the years, designers have tried to apply similar camber changing techniques to propeller blades. The attempts have ranged from hinged flaps to flap effects caused by a high-speed jet of air, and even to inflatable boots secured to the blade. All failed because the forces and stresses generated by the rapid rotation of the propeller were too great for the structures.

About three years ago, Hamilton Standard evolved a concept in which a full-length blade would be secured behind another blade on the same hub. Successive refinements of this concept resulted in a design which staggered the rear blade to give optimum alignment between the two. Effective flap action, or camber variation, could be achieved without the attachment of a movable element to the blade itself. The design also specified that both blades would change pitch differentially for take-off, flight, and landing.

When the concept was tested in wind tunnels, scale models indicated that such a propeller—using either six or eight blades in sets of two—could produce improvements of up to 35 percent in take-off thrust with no loss in cruise efficiency. In operation,

each of the forward blades of the propeller will assume a relatively low blade angle for take-off and climb. The combination of this angle with the higher angle of the rear blades will produce the effect of single, highly cambered aerofoils which will increase performance at low speeds. With increases in flight speed, the forward blades will approach angular alignment with the rear blades, thus reducing the effective camber of the combinations.

The designers claim there will be no need for radical structural departures from existing propeller designs; requirements for the hub, retention and pitch-change mechanisms are actually far less exacting than those for dual rotation propellers in use on certain large turboprop aircraft today.

UNICOM AVAILABLE AT FORTY-THREE MONTANA AIRPORTS TWO PROPOSED:

Montana now has Unicom radio sets at 43 airports.

The M.A.C. buys the sets and is reimbursed 50 per cent of the cost by the town, county, operator or pilots group requesting installation. M.A.C. personnel install, license and maintain the radios.

AIRPORTS WITH UNICOM RADIO 122.8 MC.

Alzada	Fort Benton	Plentywood
Babb	Geraldine	Polson
Big Timber	Glasgow	Poplar
Bozeman	Glendive	Red Lodge
Bridger	Hamilton	Roundup
Butte	Hardin	Scobey
Chinook	Harlowton	Shelby
Choteau	Havre	Superior
Columbus	Jackson	Sweetgrass-Countess
Condon	Jordan	West Poplar
Conrad	Kalispell	W. Yellowstone
Dell	Libby	Wolf Point
East Poplar	Missoula	Valier
Ethridge		

AIRPORTS WITH UNICOM RADIO 123.0 MC

Billings Great Falls Helena

PROPOSED STATIONS

Fairfield Culbertson

Use the Unicom frequency but do not abuse it. F.C.C. regulations are very clear in the use that may be made of Unicom:

1. This frequency shall not be used for traffic control.

2. May be used for airport information such as conditions of runways, type fuel, wind direction, weather, availability of food, lodging and ground transportation.

Major league baseball teams now travel by air about 65 per cent of the time.—N.Y.S. Dept. of Labor "Industrial Bulletin"



Operations Building at Air Strip!

November 1913—K. M. Turner develops the "aviaphone" (or "aerophone") which makes conversation possible between pilot and passenger during flight.

FOR SALE: Cessna 180 950TTA&E SMOH, Full panel lear LTRA-6 and meter, ADF-12, \$7,500. 1952 Cessna 170B OSMOH Superhomer, new license, \$4,950. Stinson 108-2 with 165 HC FRANKLIN, 370 SMOH, metal wing, exceptionally nice interior and exterior, LF radio primary panel \$2,600. None of the above ever damaged. Call Byron Bayers, Twin Bridges, Montana, 684-5465. Consider trades.

FOR SALE: One Whitaker sprayer, made to fit Piper Super Cub. 65 gal. belly tank, T-jet nozzles. All brackets and controls included. Price \$300.00. Write or call Donald Lincoln, Rudyard, Montana.

FOR SALE: 1959 Cessna Skylane; T. T. 493; full panel with Mark II Omni & LF rec., Tactair 2 auto pilot. White with maroon and coral trim. Looks and flies like new. \$11,000. Pondera Flying Service, Conrad, Montana. Ph. CR 8-3641.

FOR SALE: 1956 Taylorcraft, Model 20, 4 place; All fiberglass; 25 h.p. Continental engine; LF, HF radio, full panel; TE and F time 325 hrs. Licensed to September 1962; light green with dark green trim; excellent condition, price \$4,800. R. E. Solee, D.V.M., Box 175, Miles City, Montana.

ADVANCE CARE AND PLANNING MAKE WINTER FLYING SAFE

Winter flying need not be especially hazardous if pilots will be extra cautious of weather problems in cold climates and pay close attention to winter aircraft precautions.

A VFR pilot should avoid taking chances on the weather. If it is even slightly questionable, he should stay on the ground.

When he does fly, the VFR pilot should file a flight plan and take advantage of preflight and inflight weather briefings and the Flight Following Service. It takes two-way radio to benefit fully from the Service, but pilots with minimum radio gear can pick up weather summaries and special broadcasts. And even with no radio, a pilot can determine weather conditions along his route before taking off.

If he files a flight plan, a pilot without two-way radio can fly with assurance that a search will be started if he is too long overdue at his destination.

To cope with cold weather mechanical hazards, pilots should study their engine and aircraft handbooks and follow recommended procedures for winter operation. These rules will usually include methods for protecting the crankcase and will note the proper fuel and oil for low temperature conditions.

A few general winter precautions include:

Be sure the brakes are operating at maximum efficiency.

Winter days are short. Are the navigation and landing lights in order?

Do not attempt a takeoff with snow, frost or ice on wings or the control surfaces.

Guard against condensation. Water in the fuel line can affect the engine operation. Water in the airspeed line, if it freezes, can block the line so that the airspeed indicator, the sensitive altimeter and the vertical speed indicator will give incorrect readings or fail completely.

Keep gas tanks filled when not flying. This helps prevent condensation. Drain the sediment bowl, where condensation gathers, after every landing and before each takeoff.

Oil gets sluggish in cold weather

and an engine will build up excessive pressure immediately after starting. This sometimes strains the lines and connections between tank and engine. Check them frequently.

Preheat the engine and oil if the airport provides such service. Never use a blowtorch for this purpose because of the fire hazard.

As gasoline leaks sometimes occur even in the best of carburetors, snow inside the engine cowlings can also be a fire hazard. Always remove it before starting the engine.

If the aircraft has retractable landing gear, inspect wheel wells before every takeoff and after every landing. After taking off from a snow or slush covered runway, actuate the landing gear a few times to shake loose any moisture that might have been picked up. This prevents freezing of the gear in the well.

When flying in rain or snow be on guard against runback which can freeze and block the static opening of the airspeed lines. Even when the air is smooth, move the control surfaces occasionally to keep them free.

Check cabin heaters. Carbon monoxide is an ever present danger. The smallest amount can affect a pilot's judgment or flying ability. Over a period of several hours it can cause unconsciousness.

Check the airports, particularly in the snow belt. Find out what the runway conditions are before trying to land. Patches of snow can cause serious trouble. Watch the braking action.

EXAM-O-GRAM NO. 5 PREFLIGHT PLANNING FOR VFR CROSS-COUNTRY FLIGHT (Series 2)

1. HOW MAY YOU OBTAIN WEATHER INFORMATION FOR PRE-FLIGHT PLANNING?

Visit your local Weather Bureau (WB) airport station or your nearest FAA Flight Service Station (FSS) for a thorough weather briefing. The latest weather maps, area forecasts, terminal forecasts, winds-aloft reports, winds-aloft forecasts, flash advisories, hourly sequence reports, and pilot reports will be avail-

able. If a visit is impractical, telephone calls are welcome. When telephoning, identify yourself as a pilot; state your intended route, destination, intended time of takeoff, and approximate time en route; and, advise if you intend to fly only VFR.

The "Weather-Bureau-FAA Information Service" section of the **Flight Information Manual** contains the location and telephone numbers of WB and FSS Stations along with other pertinent information. Note the "restricted" telephone number listed for some WB Stations on which **only** aviation weather information is given. Some WB Stations have the Pilots' Automatic Telephone Weather Answering Service (PATWAS) which is a transcribed weather information service (see Special Notices Section of the Airman's Guide). For availability of weather information at various airports, check the Directory of Airports Section (longest runway and facilities column) of the Airman's Guide.

2. WHAT IMPROVEMENTS ARE BEING MADE TO PROVIDE MORE AND BETTER WEATHER INFORMATION FOR PILOTS?

(1) FSS Stations are implementing a VFR Flight Following Service. A pilot wishing to take advantage of this service must, among other things (see Special Notices Section of the Airman's Guide and forthcoming amendments to the Flight Information Manual), file a VFR flight plan, request the Flight Following Service, and receive a thorough preflight briefing.

(2) Equipment is provided at selected FSS Stations by which weather and Notice to Airman data will be recorded on tapes and broadcast continuously over the low-frequency (200-400 kc) navigational aid facility. Check the Special Notices section of the **Airman's Guide** for a list of stations currently providing this information.

3. WHAT FURTHER PRE-FLIGHT WEATHER PLANNING SHOULD BE DONE TO OBTAIN IN-FLIGHT WEATHER INFORMATION?

From your charts and the Air Navigation Radio Aids section of the **Airman's Guide**, make a list of the FSS Stations along your

route that broadcast the weather information at 15 and 45 minutes past each hour. (If the VFR Flight Following Service is used, this information will be given to you.) In addition to these two scheduled broadcasts, you may also contact at any time for further information.

4. WHAT IS RECOMMENDED BY GOOD OPERATING PRACTICES?

If the preflight weather briefing reveals questionable or marginal weather, use reasonable restraint in flying VFR. **File a flight plan** even if you do not choose to request the Flight Following Service. Maintain a close check on the weather through your FSS stations. Be sure to close your flight plan upon arrival.

BE SAFER WITH A FLIGHT PLAN.

November 4, 1936—Post Office Department authorizes shipment of "certain live animals" by air mail—excluding skunks.

Aircraft, numerous listings, buy, sell and trade—let us list your aircraft—no fee for listing your aircraft with us. Percentage if we sell your aircraft. Aviation Associates, 3111 McBride, Billings, Montana. Phone 252-6054.

FOR SALE: Cessna 180, 1954 model, TT 1,250 hrs., 735 hrs. remanufactured engine. Full paint, "O" time on overhauled prop. Excellent shape. \$6,900. Pondera Flying Service, Conrad, Montana. Ph. CR8-3641.

STEWARDESSES WANTED: Central African Airways plans to replace male African Skybus conductors with African air hostesses, and has advertised for candidates from whom a beginning figure of four will be recruited. In addition to English, applicants must speak Chinyanja, and either Shona or Bemba.

PIPER PLANS NEW AIRCRAFT

New aircraft under development by Piper Aircraft Corp. include a 400-hp Comanche which will be "20 mph faster" than any competitive model. A Twin Comanche which will be "Piper's answer to the Cessna (tandem-engine) Skymaster," and a two-place, low-wing, fiberglass model to be called the Papoose. Howard Piper, outlining future plans at the company's annual sales meeting in West Palm Beach, said Piper does not expect to move far away from its present position in the industry. The firm's future does not include helicopters. VTOL aircraft, turboprops or jets, he said. Piper predicted sales of \$60 million in 1962 and \$66 million in 1963.

The new Comanche, which is "several months away," will be powered by an 8-cylinder engine now under development by Lycoming. It will have a range of 2,100 miles. The Twin Comanche, prototype of which has been flying for "several months," will be in production in about 18 months.

The Papoose, which will utilize honeycomb figerglass for wings, fuselage components, and other areas, will make its first flight in "a few months."

Piper Aircraft is also developing a 235-hp version of the Pawnee agricultural plane, and is planning to offer optional fuel injection on the 250-hp Comanche "in about six months," Piper said. The company's Auto-Nav facility has under development several now-cost items of navigational equipment, including an ADF, a VHF transceiver, and an omni.

FEDERAL AVIATION SERVICE INSPECTION ITINERARY

CITY	AIRPORT	DEC.
Billings	Logan	4-11-18
Bozeman	Gallatin	12**-13*
Butte	Silver Bow	14
Glasgow	Municipal	13
Glendive	Municipal	20
Great Falls	International	5**--6*
Helena	City-County	4-11-18
Miles City	Municipal	21
Missoula	County	19**--20*
Wolf Point	Municipal & Anderson	14

*Flight Tests Only

**Written Examination Only

Note: Flight tests now scheduled for the FIRST day rather than the second day on itinerary.

November 3, 1908—Aeronautic Society, organized 5 months ago, holds its first tournament and exhibition at Morris Park, New York, before assemblage of 20,000 people.

MEMBER

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform aviation laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."



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